AMENDMENTS TO THE CLAIMS

What is claimed is:

1-25. (Cancelled)

26. (Currently Amended) An optical connector for establishing a connection to a complementary mating connector that has a complementary optical terminal element defining an optical axis, ~~in particular for establishing multimedia connections in a vehicle,~~ comprising:

a connector housing including a mating receptacle for mating connection with said complementary connector ~~and including a mating receptacle, and~~

~~at least one optical terminal element including at least one fiber receiving sleeve that has a front side and a rear side that are connected by walls forming a channel which defines an optical axis and includes clamping elements;~~

~~said optical terminal element being adapted for mating connection with said complementary optical terminal element of said complementary connector and includes~~

said mating receptacle including at least one sleeve forming a channel and a channel extension adjacent to one another along a stop surface for said complementary optical terminal element,

said channel and channel extension forming a channel axis to be coincident with said optical axis of said complementary optical terminal element, when the same is mated with the optical connector,

said channel extension being formed with clamping elements, and at least one optical fiber section,

said at least one optical fiber section having a front end with a front optical contact surface and a rear end with a rear optical contact surface, said optical fiber section being affixed in said channel extension of said ~~fiber receiving~~ sleeve by means of said clamping elements, and being positioned to establish, with said front optical contact surface, an optical connection to said complementary optical element of said complementary connector,

~~said front side of said fiber receiving sleeve being arranged adjacent to, and in the area of said front optical contact surface of said optical fiber section, and~~

wherein said clamping elements define a narrowing opening in said channel extension ~~of said fiber receiving sleeve~~, longitudinally spaced from said stop surface ~~front side of said fiber receiving sleeve~~ and arranged with a set-back relative to said front optical contact surface such that said front end of said at least optical fiber section extends beyond said narrowing opening in said channel extension ~~of said fiber receiving sleeve~~ adjacent to said complementary optical terminal element of said complementary connector.

27. (Currently Amended) The connector according to claim 26, wherein said stop surface ~~front side of fiber receiving sleeve for said complementary optical terminal element of said complementary connector,~~ forms a stop for said complementary optical terminal element of said complementary connector leaving a gap to said front optical contact surface of said optical fiber section.

28. (Currently Amended) The connector according to claim 26, wherein said channel extension ~~of said fiber receiving sleeve~~ is a substantially cylindrical fiber channel having said clamping elements protruding radially inwardly into said channel at said narrowing opening.

29. (Currently Amended) The connector according to claim 26, wherein said clamping elements are integrally formed with ~~said~~ walls of said ~~fiber receiving~~ sleeve.

30. (Original) The connector according to claim 26, wherein said clamping elements are formed to engage said optical fiber section in displacing and compressing some material of said optical fiber section.

31. (Currently Amended) The connector according to claim 26, wherein said clamping elements each comprise a front face adjacent to said stop surface ~~front side of said fiber receiving sleeve~~, each said front face of said clamping elements being longitudinally spaced from said stop surface ~~front side of said fiber receiving sleeve~~ towards said rear ~~side thereof~~ end of the optical fiber section.

32. (Currently Amended) The connector according to claim 31, wherein each said front face of said clamping elements is offset relative to said ~~front side of said fiber receiving sleeve~~ stop surface by more than 30 μm and less than 5 mm.

33. (Currently Amended) The connector according to claim 26, wherein said channel ~~of said fiber receiving sleeve~~ extension includes a front guide section having a first interior diameter and a rear insertion section having a second interior diameter, said second interior diameter being larger than said first interior diameter.

34. (Original) The connector according to claim 33, wherein a chamfer is provided between said front guide section and said rear insertion section.

35. (Currently Amended) The connector according to claim 26, wherein said ~~fiber receiving~~ sleeve, in the region of said channel extension, includes a rear insertion section and a front guide section having an interior diameter for guiding said fiber section front end that has an exterior diameter, said interior diameter of the front guide section being between 40 μm smaller and 120 μm larger than said exterior diameter of said optical fiber section.

36. (Currently Amended) The connector according to claim 33, wherein said optical fiber section has a radial clearance in the range of 40 μm to 100 μm in said rear insertion section of said fiber receiving sleeve.

37. (Original) The connector according to claim 33, wherein said clamping elements are located in said insertion section.

38. (Original) The connector according to claim 33, wherein said clamping elements are longitudinally spaced from said rear end of said front guide section in direction of said insertion section.

39. (Currently Amended) The connector according to claim 26, wherein at least three clamping elements are arranged in said channel extension, evenly spaced around the circumference of said channel extension.

40. (Original) The connector according to claim 39, wherein said clamping elements are formed as engaging lugs.

41. (Original) The connector according to claim 40, wherein said engaging lugs have a substantially triangular cross section, seen in radial direction onto said optical fiber section.

42. (Currently Amended) The connector according to claim 40, wherein said engaging lugs each has a ramp surface inclined to said rear end of said fiber section and a front face that extends substantially perpendicularly to said ~~optical axis of said optical terminal element~~ channel axis.

43. (Currently Amended) The connector according to claim 42, wherein said engaging lugs each has a width in the range of 150 μm to 400 μm measured in circumference direction of said channel extension ~~in said fiber receiving sleeve~~ and a height of 50 μm to 200 μm measured in radial direction of said channel extension, each lug protruding radially inwardly of the channel extension.

44. (Original) The connector according to claim 26, further comprising at least one electro-optical converter including an optical input/output, said converter being located at said rear end of said optical fiber section and said rear optical contact surface of said fiber section providing an optical connection between said fiber section and said converter.

45. (Currently Amended) The connector according to claim 44, wherein said connector housing has a rear side and side surfaces, and said electro-optical converter is mounted by a bracket directly to said rear said of said connector housing.

46. (Currently Amended) The connector according to claim 45, wherein said bracket is stamped from sheet metal, substantially U-shaped and interlocked on said side surfaces of said connector housing, the bracket also being provided with soldering pins for connecting with a printed circuit board.

47. (Original) The connector according to claim 45, wherein said bracket comprises at least one elastic spring section, pressing said converter onto said rear optical contact surface of said fiber section when assembled.

48. (Original) The connector according to claim 47, wherein said bracket compromises a rear wall and an upper cover, integrally connected along a rear upper edge in one piece, said spring elastic section being attached to said upper cover and said spring elastic section having a substantially L-shaped cross section.

49. (Currently Amended) A method for manufacturing an optical connector ~~including plastic fibers~~ for establishing a connection to a complementary mating connector that has a complementary optical terminal element, ~~in particular for manufacturing a multimedia connector for a vehicle~~ comprising the steps of:

a) providing a connector housing with a mating receptacle for mating connection with ~~a~~ said complementary connector, wherein said ~~connector~~ receptacle has at least two ~~optical terminal elements~~ sleeves forming each a channel and a channel extension, for mating connection with said complementary ~~mating~~ optical terminal elements of said complementary connector, and wherein each of said ~~terminal elements~~ channel extensions has ~~a fiber receiving sleeve, each with~~ a front side and a rear side ~~connected by a channel~~ and ~~including~~ includes a plurality of inner clamping elements that define a narrowing opening in said channel extension, said narrowing opening being longitudinally spaced from said front side of said ~~fiber receiving sleeve~~ channel extension,

b) providing at least two optical fiber sections, each having a front end with a front optical contacting surface and a rear end with a rear optical contact~~ing~~ surface,

c) pressing said fiber sections directly into an associated one of said ~~fiber receiving sleeves~~ channel extensions thus fixing said fiber sections by means of said clamping elements in

said ~~fiber receiving sleeves~~ channel extensions, such that said front end of said optical fiber section extends beyond said narrowing opening in said channel ~~of said fiber receiving sleeve~~ extension adjacent to said complementary optical terminal element of said complementary connector.

d) positioning at least two electro-optical converters in said connector housing with each ~~a~~ converter at said rear side of each associated ~~fiber receiving sleeve~~ channel extension, whereby an optical connection between said fiber sections and said converters is established through rear optical contacting surfaces of said fiber sections, and

e) affixing said converters to said connector housing.

50. (Currently Amended) The method according to claim 49, wherein each said ~~fiber receiving~~ sleeves ~~each~~ comprises a ~~front~~ stop surface in the area between said channel and said channel extension ~~of a front optical contact surfaces of said optical fiber sections~~, also comprising the step of

f) pressing ~~each~~ a mounting die against an associated one of said ~~front~~ stop surfaces in each said sleeve, thus forming a front stop for the associated fiber section during step c).